Investigation into light commercial traffic

Appendix 1

This report is a summary of the evidence we have received as part of our investigation into the growth of light commercial traffic in the capital. The evidence will be used to inform a discussion paper and survey to gauge public opinion on the steps Transport for London and local authorities could take to reduce the impact of the increase of van traffic on congestion levels and the environment, while being careful not to harm economic growth. The paper will also consider consumer habits and the extent to which people would be prepared to change the way they receive online deliveries to reduce the need for more vans on London's roads, and whether they would be willing to pay more for sustainable delivery modes.

Conclusion	Evidence
Trends There has been a steady increase in van traffic[1] in London in the last three years. During the same period, HGV traffic has been static. Predicted population growth in London is likely to make it a more challenging issue for the capital.	▪ There has been an increase in van traffic on London's roads in recent years. DfT estimates show the number of vehicle miles travelled by vans in London, between 2012 and 2014, increased by 13 per cent. During the same period, miles travelled by HGVs remained the same. One in five vehicles during peak hours in London are vans. ▪ Based on the estimated population growth of London, TfL anticipates van traffic increasing by 22 per cent between 2011 and 2031, while HGV traffic will remain static.
Causes The rapid growth in e-commerce is the most likely cause for the increase in van traffic, but there are other factors including the lighter regulations around vans compared to HGVs and the flexibility they offer. More information is needed about what vans are being used for in order to explain this trend, and design interventions to reduce their impact on congestion.	▪ Economic growth is fuelling the rise in van traffic, specific factors behind the increase include: the growth of e-commerce and home deliveries, vans being used instead of HGVs because of light regulation and the greater flexibility they provide; the recent rise in the number of self-employed people, reduction in stock space on business premises. ▪ TfL wants to understand what the vans are being used for. A recent TfL survey of vans travelling during peak hours inside the congestion charging zone found almost 40 per cent of the 3,454 observed could not be attributed to a specific trade or industry. Of the vans that could be identified, the servicing and facilities

[1] For the purpose of this summary, 'vans' will be used instead of light commercial vehicles to describe any commercial carrier vehicle in the N1 taxation class, with a gross vehicle weight of not more than 3.5 tonnes. Vehicles in this class are extremely diverse and range from 'car-derived' types, which are essentially car bodies adapted to carry small payloads, through 'Luton' or 'Transit' type 'panel vans' to small 'tipper' or 'box' vans. Sports Utility Vehicles are excluded from this categorisation. Heavy goods vehicles (HGVs) refer to any truck with a gross vehicle weight of over 3.5 tonnes.

	sector had the highest share (20 per cent).
Re-timing deliveries TfL has worked with partners to create opportunities for out-of-hours-deliveries, to reduce congestion at peak times. Several large firms have shifted to night-time deliveries. Lessons need to be applied more widely, in particular to reach those businesses which have barriers to changing delivery times. Boroughs policies may also prevent changes to delivery times planning policy. The onus is on local authorities to ensure departments are working together to deliver effective freight management policy.	▪ TfL encouraged businesses to retime deliveries outside peak hours during the 2012 Games. The approach proved successful as the share of HGV traffic entering the central London congestion charging zone at peak time (between 7-11am) during the Games fell, compared with an average day in 2011. TfL set up an Out of Hours Consortium in 2013, involving freight operators, retailers, trade associations and several London boroughs, to explore more opportunities for out-of-hours-deliveries. According to Tesco, working with the Consortium has enabled 45 of its stores in London to accept night-time deliveries. Starbucks, Pret A Manager and Nero get deliveries overnight. ▪ Companies may be unwilling to change established practices or local authority rules (environmental health, planning etc) may stop them for delivering at different times in the day. For some businesses the costs associated with retiming deliveries will be too high. However, there may still be opportunities to work through planning policy regulations to retime deliveries.
Congestion charging More radical options could be explored to reduce the impact on van traffic in the capital. For example, a demand-based charging system. Not enough is known about the potential of this change.	▪ The Federation of Small Businesses (FSB) has suggested that congestion charges had resulted in many delivery companies adding on a surcharge to delivery bills. This is difficult for small businesses in London to pass on to their customers as it tends to make them uncompetitive with businesses based outside of London. A FSB Congestion Survey found 46 per cent of businesses feel the charge should be less during off peak hours and 34 per cent believe the charge should be increased during peak times. 35 per cent of firms feel the charges should be higher for environmentally “less friendly” vehicles and 39 per cent feel the charges should be lower for environmentally friendly vehicles. FSB has proposed “root and branch reform” of the entire Congestion Charge scheme, including tunnel charging to ensure “a dynamic demand based charging system to support the competitiveness of businesses and consumers.” It has also proposed a feasibility study to assess whether a new improved road charging system could be more sophisticated and better reflect journey and emission patterns.”
Consolidation centres Consolidation centres, both in outer London and inner	▪ The public sector could take the lead in promoting delivery consolidation. The London Borough of Camden used a consolidation centre, operated by DHL, to

London, could help reduce van traffic. They have been successful for some industries and organisations. But they require significant investment to establish and strong coordination, most likely by local authorities with industry bodies and individual companies.	reduce delivery traffic to 300 council buildings in Camden, and partner boroughs, Enfield, Waltham Forest and Islington, by more than 40 per cent. Bond Street retailers have a shared consolidation centre. In Brussels and Paris, urban consolidation centres were trialled, where goods from multiple shoppers and vendors were stored and delivered by third-party delivery firms using low-emission vehicles and, where possible, electric cargo bikes. ▪ However, while consolidation centres can reduce costs for shippers, the benefits may be offset by rental and labour costs. Land use is also an issue. The London Forum of Amenity and Civic Societies suggested boroughs should retain the power to protect existing and potential consolidation sites against proposals for alternative uses, including housing. ▪ Cargo bike delivery company, Outspoken Delivery, also identified challenges around multi-operator consolidation including: who operates the consolidation centre, delivery scheduling, consolidation of cargo from competing carriers, and the respective responsibilities of the various stakeholders involved. But said Local Authorities were ideally placed to make consolidation work by using regulatory measures (access restrictions, time windows), market based measures (congestion charging) and planning measures (zoning), while working with businesses, supporting construction of appropriate infrastructure (consolidation centres, lockers), enabling technology solutions (green vehicles, open data) and governance and coordination.
Click & Collect Greater use of Click & Collect could improve the efficiency of how goods and services are delivered across London. While the growth in e-commerce is expected to continue, more customers are having their shopping delivered to collection points at shops, railway stations and post offices, instead of their homes to avoid missing deliveries. However, a large majority of consumers in London have not yet used these methods. By making convenient collection options available TfL has a	▪ It has been estimated that up to 60 per cent of untimed small home deliveries currently end in failure, adding to traffic volume by requiring re-delivery. More delivery operators are moving towards timed delivery slots to prevent failed deliveries, such as Amazon and Hermes. ▪ Supermarkets are seeing a significant rise in the use of Click & Collect. Analysts Planet Retail predict 76 per cent of UK online shoppers will use Click & Collect by 2017. However, Click & Collect is not always replacing delivery journeys; in some cases, it is simply substituting them. ▪ TfL has trialled Click & Collect at a number of its stations. Since the beginning of 2014, TfL has set up Click & Collect services at 42 tube station car parks.

role to play in influencing consumer habits, for instance using collection lockers at stations instead of getting items delivered directly to their home or the workplace. It is important, however, that solutions are designed to discourage additional car journeys being made to collect items.	According to TfL, 10,000 orders were made in the first ten months. Ocado, Waitrose, Tesco and Sainsbury's have all trialled using Click & Collect at tube stations. However, Tesco and Sainsbury's recently said it would no longer offer the service. It has been suggested this was because customers were driving to the stations to collect their shopping rather than collecting it as part of their commute. Tesco told the Committee: "it is hard to describe all the reasons but my suspicion probably is we have such a good store network that it was just as easy for the customer to go to the store." ▪ TfL is also exploring the use of collection lockers at tube stations. Online retailers such as Amazon allow customers to have products delivered to secure lockers customers can access. Last year, Amazon entered an agreement with TfL to set up lockers at two tube stations: Finchley Central and Newbury Park. Amazon is also reported to be interested in converting London Underground ticket offices into parcel delivery and collection points. Doddle, partly owned by Network Rail, provides a similar service and has shops in a number of tube stations.
Sustainable delivery There is a potentially significant role for more sustainable delivery modes in London. The biggest opportunity appears to be a shift to electric vehicles, although the infrastructure for electric vehicles needs improvement.	▪ TfL-commissioned research shows vans in London are relatively poorly-utilised: 39 per cent are less than one-quarter full with an average payload of 38 per cent (about 300 kg). ▪ There are already a number of examples of sustainable transport modes being used for delivery in London. Gnewt, a delivery company, operates a fleet of more than 100 electric zero-emission vehicles, including cargo-cycles and minivans, in central London. UPS has said it is working towards the goal of running an all-electric fleet in London. It currently operates 28 electric vehicles in the capital, with 40 more planned in the next few years. ▪ The introduction of the Ultra-Low Emission Zone in London in 2020 is likely to put more pressure on delivery companies to upgrade to low-emission vehicles. Government recently announced a scheme to allow businesses' purchasing energy efficient vans to take advantage of a range of tax incentives, including zero vehicle excise duty and exemption from the congestion charge. This may assist in increasing the number of electric vehicles in London. However,

	according to RAC, it is also dependent on supporting infrastructure such as charging points. Overall, the changes are likely to reduce the take up of ultra low emission vehicles as after the first year, these will be banded into the same standard as other more polluting vehicles. ▪ Vehicles that run on gas or electricity significantly more expensive to purchase and, according to DHL, investment only worthwhile if vehicles can be used on multiple shifts throughout the day: "Until the industry is permitted to sweat these assets to a greater extent we will not have the market conditions to increase demand in such technology and thus in turn bring down the production cost." UPS also identified barriers to investing in sustainable transport, including the costs of investment required in electric vehicles and the necessary charging infrastructure required to run a large fleet. UPS said it was able to operate 28 electric vehicle after significant investment in new electricity sub-stations. But current electricity sub-stations are close to capacity. UPS proposed funding assistance for businesses to boost the sub-station capacity in London. TfL will shortly be consulting on-street charging for electric vehicles consultation.
Cycles and motorcycles For some forms of commercial traffic, cycles and motorcycles could offer a practical solution, reducing emissions and congestions and avoiding the inefficient use of vans. Safety concerns may prevent organisations from making this change, with cyclists and motorcyclists both relatively vulnerable to injury in traffic collisions.	▪ Research by EU-funded CycleLogisitcs Projects has shown 25 per cent of all commercial deliveries could potentially be undertaken by cargo bikes.[2] According to Outspoken Delivery, many of the large international logistics operators are trialling or have started to implement cargo bike delivery solutions in cities both in Europe and UK. The advantages of using cargo bikes for deliveries include: zero emissions and noise pollution; reduction in congestion through consolidation of packages (e.g. OutspokenDelivery work for TNT and Parcelforce in Cambridge and combine deliveries so that many parcels with a cargo bike have just one stop rather than two vans); bikes can access restricted areas (e.g. West End); cost effective delivery prices because of fewer overheads (fuel, parking charges, road tax) of vans. But there are also challenges, including: security; proof of delivery; real-time tracking (each carrier has own IT solutions for POD resulting in delivery riders having to take multiple had-held devices out with them); limited range; and insurance.

[2] http://one.cyclelogistics.eu/docs/119/D7_1_CycleLogistics_Baseline_Study.pdf.

	▪ Motorcycle experts have suggested tradespeople could be encouraged to use motorcycles to attends jobs rather than vans. This may not be appropriate in some cases but where relatively small amounts of equipment are required, it could reduce van usage.
River and canals Some parts of the delivery chain could be removed from London's roads, with rivers, canals or the rail network being utilised as an alternative. There are capacity and geographical barriers to this shift, but available assets should be fully utilised.	▪ Rail and water present opportunities to relieve road congestion caused by freight delivery. Currently, 88 per cent of freight is delivered by road in London. The European LaMilo programme funded a project at London Euston station in 2012 where a freight train delivered goods for Sainsbury's on an overnight service from the Midlands into London Euston station for last mile out-of-hours delivery to stores in central London, using smaller goods vehicles. The lower external costs of rail, compared to HGVs, could make rail-connected consolidation centres more effective. Combining passenger and freight transport is also an option. One of the three finalists in a competition funded by the RSSB and Network Rail called Tomorrow's Train Design Today proposed the idea of an 'adaptable carriage', with automatic stowage and moveable seating (see image). During off-peak times, the seats could be automatically moved and stowed to allow room for freight. Amazon currently uses the New York subway to distribute packages within the city, and has recently installed collection lockers in two London Underground stations. TfL has suggested it could look into the possibility of reopening the Post Office railway for early morning deliveries from outside of London. ▪ TfL could look at schemes similar to that run in the city of Utrecht, which operates a zero emission electric boat, known as the 'beer boat' to make daily deliveries to more than 60 catering businesses located along the canal network. Funding for the boat came from the city's air quality improvement budget. TfL is currently looking at opportunities to increase freight delivery on the River Lee and Regents Canal. The Freight Group of the LWC has developed an initiative for a regular freight service, initially on the Paddington Arm of the Regents Canal. It would have a small number of pick-up/drop off points which would act as minor consolidation centres.
Drones	▪ Both Amazon and Google are investigating the potential for drones in the supply

Some companies are trialling the use of drones for deliveries, and the Mayor's has supported this as a solution for London. However, the technology does not appear to yet offer a practical solution for the issues London faces. Furthermore, the widespread use of drones over London could cause a variety of environmental and public safety problems.	chain. It is developing the concept at centres in the USA, UK and Israel. DHL has recently tested a "parcelcopter" to fly light parcels to a German Island, and has recently launched a London helicopter service from Heathrow to Canary Wharf to cut transatlantic delivery times.[3] While drones could help to improve delivery networks, the risks attached to the technology could outweigh the benefits – as could the costs. There are also likely to be limits to its effectiveness in an urban environment.[4][5] ▪ The Mayor has previously expressed support for drones. He said: "We need a solution. Is it, as I hope, going to be drones? I want to be controlling an app that enables my shopping not only to be click and collect. I want my own personal drone to come and drop it wherever I choose.[6]

[3] DHL launches London helicopter service to beat traffic jams

[4] http://www.economist.com/news/science-and-technology/21666118-miniature-pilotless-aircraft-are-verge-becoming-commonplace-welcome?fsrc=scn/tw/te/pe/ed/miniature-pilotless-aircraft-are-verge-becoming-commonplace-welcome

[5] http://www.theguardian.com/technology/2015/sep/29/amazon-flex-gig-economy-uber-for-packages-service?CMP=twt_gu

[6] Boris Johnson calls for drones to solve London congestion The Guardian (28 November 2014)